SBCC Testimony Oct 14, 2022

Good morning, council. I'm Dr Breck Lebegue, public health doctor with WA Physicians for Social Responsibility. We urge you to electrify our buildings.

I'm the grandson, son and brother of a family of builders. During my 40-year medical career, I remodeled every home I lived in. I heated & cooked with gas. It's fast, easy, and we used to think it was clean. Now we know better and have better choices. Although liquid-fuel transportation is still responsible for most greenhouse gases, methane gas in our homes and apartments is dangerous to health. Unvented gas cooking produces nitrogen oxides, carbon monoxide and fine particulates that damage lungs, hearts, and brains—especially in pregnant women and babies.

Doctors make decisions based on facts and evidence. Indoor air is often worse for our health than the fresh air outside; whether it's COVID virus, chemicals in paint and carpets, mold, or burned hydrocarbons from a stove. New building codes can help prevent illness from combustion by-products, by requiring non-polluting clean electric appliances in our new homes and commercial buildings and remodels, powered by hydro, wind and solar.

Clean electric heat pumps & stoves can keep us warm and safe. Please make the right choice, with the right codes, for our good health indoors.

Thank you.

Breck Lebegue MD MPH

Health care, air quality, equity, & faith advocates

- Gas extraction from fracking largely takes place on or near tribal or First Nations lands, creating disproportionate risk to indigenous communities for air pollution, water contamination, and overuse of water.
- People spend the majority of their time indoors–up to 90% of their lives. And yet, indoor air is estimated by the EPA to be two to five times more polluted than outdoor air.
- An estimated $110 million dollars in health impacts annually can be attributed to burning fossil fuels in commercial buildings in Washington. The proposed code changes move us away from burning fossil fuels in buildings and toward cleaner, more efficient sources that heat our buildings and do not contribute to hazardous air quality impacts.
- Research shows buildings are also the primary cause of combustion pollution-related early deaths in Washington state due to their contributions to air pollution (PM2.5 and ozone).
- Fossil gas cooking appliances emit nitrogen oxides (NOx), carbon monoxide (CO), fine particulate matter (PM 2.5), ultrafine particles, and formaldehyde, which compromise indoor air quality—even when they're operating correctly.
- Combustion of fossil fuels in buildings also creates outdoor air pollution - buildings in Washington generate more than two times as much nitrogen oxide (NOx) as power plants do.
- Communities who are suffering worst from pollution — often low-income, communities of color, and linguistically-isolated people — have higher risks of death from particle pollution, in part due to the historical impacts of redlining that have led communities of color to be pushed to live in places with greater exposure to air pollution.
- Lower-income households may also be at higher risk of exposure to gas stove pollution because of smaller unit sizes, more people per home, older homes with poorer ventilation, and using stoves or ovens for supplemental heat.
- Lack of access to healthcare, jobs, grocery stores, and more also lead to disparate health impacts from buildings for vulnerable communities.
- The COVID-19 pandemic creates additional urgency to reduce the use of gas in buildings - small increases in long-term exposure to higher levels of nitrogen oxide (NOx) and particulate matter (PM2.5) are correlated with higher risks of death from COVID-19, particularly for people over the age of 65.
- The use of fossil gas in buildings also poses safety risks to communities due to the potential for gas leaks and pipeline explosions. Over the past five years, an "accident or incident" has occurred on the U.S. gas distribution systems on average every six days, causing dozens of fatalities and hundreds of injuries.
- Earthquake risk makes Washington state particularly vulnerable because highly pressurized gas transmission pipelines run a high risk of exploding during earthquakes, and gas is responsible for at least 20% of post-earthquake fire ignitions.
- Using highly efficient heat pumps with cooling capabilities will be essential to keeping vulnerable people safe during increasingly extreme and deadly heat waves or wildfires, especially for homes that otherwise would not be able to afford air conditioning and for people who are bedridden, which puts them at the greatest risk of heat-related health impacts.